

Artistic design of virtual reality content of leather handicraft samples

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Abstract: With the continuous development of science and technology, virtual reality technology has been widely used in various industries. In the leather handicraft industry, virtual reality technology has also begun to be applied to product design and sales. This article takes the artistic design of virtual reality content of leather handicraft samples as the theme, and analyzes, discusses and explores its application from the professional perspective of the industry.

Keywords: Leather handicraft design; Virtual simulation design; Digital media art and design; Art and design; AI Plus.

1. Introduction

As an emerging technology in recent years, virtual reality technology has brought new opportunities and challenges to the development of many fields. In the field of art design, virtual reality technology is also receiving increasing attention, because it can help artists and designers better display their works and improve their artistic and market value.

As a traditional handicraft, leather art has always had a wide audience and influence in the appreciation and collection market. However, because the production of traditional leather handicrafts is time-consuming and laborious, and it is easily restricted by the environment and materials, in today's fast-growing market, the quantity and quality of leather handicrafts are limited to a certain extent. In response to this problem, virtual reality technology provides new ideas and innovative solutions for the production of leather handicrafts. By using virtual reality technology, more diversified and exquisite leather handicrafts can be made in a shorter time, and can be easily modified and adjusted, improving production efficiency and production quality.

In this context, this paper aims to explore the artistic design of virtual reality content based on leather handicraft samples, focusing on how to convert the artistic elements in the production process of leather handicrafts into design elements required by virtual reality technology, so as to realize digital innovation and digital art design. Through the research of this paper, we can have a more comprehensive and in-depth understanding of the combination of leather handicrafts and virtual reality technology, and how to give full play to their complementary advantages to create better works of art.

2. Overview of virtual reality technology for leather handicraft samples

2.1. Development and application status of virtual reality technology

Virtual reality technology (VR) is a computer simulation technology that can simulate real-world scenes, objects and their behaviors into a virtual environment, so that the user's

senses can have an immersive experience. It can provide a new virtual scene, so that users can feel like they are in a real scene, and can even interact and control the virtual world. Virtual reality technology is one of the most rapidly developed and widely used digital technologies in recent years.

2.2. Characteristics and demand analysis of leather handicraft samples

Handicrafts still play an important role in modern society, and leather handicrafts are one of them. The production process of leather handicrafts is complicated, which requires a variety of operations such as manual cutting, sewing, fitting, etc. Therefore, leather handicrafts have a unique feel and texture, as well as good texture and beauty.

However, the production of traditional leather handicrafts requires a lot of manpower and material resources, and because the production process, material selection, style design, etc. of each product are different, it is difficult to produce and sell in batches. In addition, due to the size, weight, shape and other factors of leather handicrafts, there are certain difficulties in display and sales. [1]

Virtual reality technology can effectively solve these problems. Using virtual reality technology, a virtual leather handicraft exhibition platform can be established, allowing users to freely browse and choose their favorite products in a virtual environment. In addition, virtual reality technology can also simulate the real feel, texture and other characteristics, so that users can intuitively feel the characteristics and charm of leather handicrafts. [2]

At the same time, virtual reality technology can also save the production process, material selection, style design and other information of each product through digitalization to facilitate production and sales. This is particularly important because virtual reality technology can directly combine this information with digital manufacturing technology to achieve fast and accurate production and customization.

2.3. Discussion on virtual reality technology solutions for leather handicraft samples

When establishing a virtual reality exhibition platform for leather handicrafts, the following aspects need to be considered:

2.3.1. Platform construction

The virtual reality exhibition platform requires certain hardware and software support, such as VR helmets, handles, computers, etc. At the same time, it is necessary to use virtual reality technology and related software platforms to develop virtual exhibition scenes, product models, etc. According to the characteristics of handicrafts, simulation technologies such as feel and texture need to be added.

2.3.2. Product collection and digital processing

First of all, it is necessary to collect a certain amount of leather handicraft samples, use high-definition camera equipment and 3D scanning technology for digital processing, and post-processing to make it a real and realistic virtual model. At the same time, it is also necessary to record the production process, material selection, style design and other information of each product.

2.3.3. Exhibition mode and experience design

The exhibition mode can adopt the three-dimensional scene display of virtual reality technology, including the space layout inside the exhibition area and the display method of products. The experience design mainly focuses on the interaction, experience, immersion and realism between users and the virtual exhibition area.

2.3.4. Realize customization and intelligent manufacturing

The virtual reality exhibition platform can provide your leather handicrafts to consumers, allowing customers to choose the color, size, style and other aspects of the product in the virtual environment to meet the personalized needs of customers. At the same time, the virtual exhibition platform can automatically combine customers' choices with digital manufacturing technology to achieve fast and accurate production.

Generally speaking, the artistic design of virtual reality content based on leather handicraft samples requires multi-faceted technical support, but with the development and application of virtual reality technology, such technologies will also become more mature and perfect, providing new possibilities for the inheritance and development of leather handicrafts.

3. Virtual reality content design of leather handicraft samples

3.1. Basic principles and methods of virtual reality content design

Virtual Reality (VR) is a kind of immersive experience of building a three-dimensional virtual environment through computer technology, putting users in it and making them feel immersive. Virtual reality technology has been widely used in games, education, medical care, architecture and other fields. In the field of leather handicrafts, virtual reality technology can help consumers better understand the details of products and improve the user's purchase experience. Virtual reality content design needs to follow some basic principles and methods to achieve better user experience and business benefits. [3]

3.1.1. User experience-centered

The ultimate goal of virtual reality technology is to provide users with a better experience, so virtual reality content design needs to be user experience-centered. Designers need to consider the needs and interests of users and provide users with a virtual reality experience that meets their expectations.

In the virtual reality content design of leather handicrafts, visual effects, interaction, sound effects and other means can be used to let users feel the exquisiteness and texture of leather handicrafts.

3.1.2. Authenticity

Virtual reality design needs to simulate real-world objects and environments as much as possible, so that users can get real feelings. In the virtual reality content design of leather handicrafts, it is necessary to restore the materials and details of real leather handicrafts as much as possible, so that users can feel the texture and quality of leather handicrafts more realistically.

3.1.3. Simplicity

Virtual reality content design needs to be concise and clear. Do not use too many special effects and images, otherwise it will make users feel overly exciting and affect the user experience. When designing the virtual reality content of leather handicrafts, it is necessary to take into account the details of leather handicrafts, but it is also necessary to ensure simplicity so that users can quickly understand the characteristics of leather handicrafts.

3.1.4. Interactivity

Virtual reality content design needs to be interactive, so that users can get a better experience through operation and interaction. In the virtual reality content design of leather handicrafts, gesture recognition, touch screen and other interactive methods can be used to let users better understand the details and texture of leather handicrafts.

3.2. Analysis of virtual reality content design elements of leather handicraft samples

Leather handicrafts need to take into account the following aspects when designing virtual reality content:

3.2.1. Material texture

The material and texture of leather handicrafts are its most important features, so it is necessary to restore the real leather material and texture as much as possible in virtual reality content design.

3.2.2. Detail performance

The design details of leather handicrafts are their uniqueness. Virtual reality content design needs to take these details into account and restore their characteristics as much as possible. For example, when designing a handbag, it is necessary to consider the internal structure and layout of the bag, as well as the handle, zipper and other details.

3.2.3. Usage scenarios

When designing virtual reality content, you need to consider the use scenarios. For example, the display of leather handicrafts needs to take into account the atmosphere and lighting of the environment to create a better display experience.

3.2.4. Interactive mode

Virtual reality content design needs to take into account the interactive mode to improve the user experience. For example, when designing virtual reality display cabinets, gesture recognition or touch screens can be used to increase the interaction between users and products.

3.3. Case study of virtual reality content design of leather handicraft samples

Realizing the virtual reality content design of leather handicraft samples requires certain technical and innovative

capabilities. The following is a case study of the virtual reality content design of a leather handbag:

3.3.1. Design goal

Through virtual reality technology, users can better understand the details of leather handbags and increase users' purchase decisions.

3.3.2. Design elements

A. Real leather texture and texture: In the virtual reality display, the real leather material and texture should be restored.

B. Performance of details: In the virtual reality display, it is necessary to restore the real details as much as possible, such as handle, zipper, internal layout and structure.

C. Interactive experience: Users can interact with virtual reality handbags through gestures or other means to gain an in-depth understanding of its details and texture.

3.3.3. Design and execution

A. The shape and internal structure of the handbag are constructed in the form of a three-dimensional model, taking into account the details.

B. Utilize High-precision 3D scanning Technology restores the true texture and material of the leather handbag.

C. Use user experience-centered interaction methods, such as gesture recognition and touch screen, to increase the interactive experience between users and virtual reality handbags.

D. Through virtual reality technology, the display environment of leather handbags is simulated to provide users with a real shopping experience.

In a word, the virtual reality content design of leather handicraft samples needs to have certain technical and innovative capabilities, taking into account user needs, usage scenarios and interaction methods. By designing excellent virtual reality content, the connection between users and products can be strengthened, and the user's shopping experience and purchase decisions can be improved.

4. Virtual reality content art design of leather handicraft samples

4.1. Concept and application value of art design

Art design refers to the creation of unique art varieties through the organic combination of various artistic elements in product design, based on artistic aesthetics, creative thinking and technical techniques. Art design is not only a visual aesthetic experience, but also considers product functions, sense of experience and other aspects. Art design has high application value in terms of comprehensiveness, foresight, creativity and universality.

In the field of virtual reality, the application value of art design is more prominent. With the rapid development of virtual reality technology, VR technology has become an important tool in many industries, such as games, design, medicine, etc. In the field of virtual reality, art design can generate virtual forms of expression by simulating real situations, so that users can get a more realistic experience, effectively improve user satisfaction, and also bring more business opportunities to the industry.

4.2. Basic Principles of Virtual Reality Content Art Design of Leather Handicraft Samples

The virtual reality content art design of leather handicraft

samples needs to follow some basic principles:

4.2.1. Reflect the quality of leather handicrafts

Leather handicrafts are high-quality products that have been carefully designed and handmade. In virtual reality, they need to be displayed through meticulous processing and exquisite models to ensure that users get a real visual and tactile experience.

4.2.2. Create a sense of immersion

Immersion is one of the important goals of virtual reality content design, which allows users to have a more realistic experience. For leather handicrafts, you can create a sense of immersion by simulating the real situation, such as the handmade process, the texture of leather materials, etc.

4.2.3. Build a brand image

Leather handicrafts are one of the representatives of high-end brands. Art design needs to show its brand image and design style in the form of virtual reality, so as to impress users.

4.2.4. Emphasize the user experience

In virtual reality, user experience is one of the keys. Therefore, art design needs to consider the needs and experience of users from the perspective of users, and create more attractive and interactive content.

4.3. Virtual reality content art design of leather handicraft samples Apply Analyse

4.3.1. Online display platform

Through virtual reality technology, offline physical leather handicrafts can be converted into online digital display, and can also provide more perfect interaction and display functions. The online platform can let users feel the real feeling by simulating real situations, such as exhibition halls, shopping malls, etc. At the same time, interactive design elements, such as touch, rotation, etc., can be added to improve the user's sense of experience.

4.3.2. Virtual shopping mall

Virtual reality shopping mall is a new retail model, which includes functions such as display, operation, interaction and purchase of physical models. In the virtual shopping mall, leather handicrafts can be digitized and presented through 3D modeling and rendering technology. At the same time, artificial intelligence technology can provide users with personalized recommendation services to improve the user experience. [4]

4.3.3. Leather workshop

Leather workshop is a place that provides handmade skills. Through virtual reality technology, users can simulate the real situation in the virtual workshop, learn skills and feel the production process. At the same time, users can also understand different materials and tools through virtual reality interaction to improve the skills and experience of handmade.

In summary, the virtual reality content art design of leather handicraft samples needs to take into account many factors such as product quality, immersion, brand image and user experience. In the field of virtual reality, the virtual reality content art design of leather handicraft samples can be presented in a variety of ways, such as online display platforms, virtual shopping malls, leather workshops, etc. Through the professional technology of art design, it can provide more effective support and guarantee for the digital transformation of leather handicrafts.

5. Conclusion

Through the study of the virtual reality content art design of leather handicraft samples, this paper reveals the innovative application of virtual reality technology in the field of traditional handicrafts and its far-reaching impact on the development of the industry. The combination of virtual reality technology and art design has brought new opportunities to the leather handicraft industry. Through innovative design methods and artistic expressions, the market value and user experience of products can be effectively improved, and new ideas and solutions for the digital transformation of traditional handicrafts can be provided. With the continuous progress and improvement of technology, we have reason to believe that virtual reality technology will play a more important role in the field of

leather handicrafts in the future and promote the sustainable development and innovation of the industry.

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